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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/067,758

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Chun-Geun Choi

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EXAMINER

LUU, MATTHEW

ART UNIT

PAPER NUMBER

2676

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8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/067,758

Applicant(s)

CHOI, CHUN-GEUN

Examiner

LUU MATTHEW

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-80 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8, 15-31, 39-49 and 61-80 is/are allowed.
- 6) ☒ Claim(s) 9-14 and 32 is/are rejected.
- 7) ☒ Claim(s) 33-38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/20/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 50-60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 50 recites the limitation "the digital color gain signals and the digital cutoff signals" in the last two lines. There is insufficient antecedent basis for this limitation in the claim.

Dependent claims 51-60 are considered rejected for incorporating the defects from their respective parent claims by dependency.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-14 and 32, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumaki (5,619,229).

Regarding claim 9, Kumaki discloses (Figs. 1, 4, and 5) a method for color display adjustment, comprising:

selecting a range of temperature (Fig. 4) according to maximum and minimum color temperature values (column 6, lines 27-40, wherein the minimum value is zero and the maximum value is the highest value);

inputting a user selected value (Fig. 1, in the color temperature adjusting unit 5, a knob is handled to provide a color temperature by an operator) (column 3, lines 43-45); and determining color gain and cut-off data according to the user selected value (column 3, line 43 to column 4, line 20).

The only difference between the disclosure of Kumaki and the claimed invention is that the claim further requires determining color gain and cut-off data according to the maximum and minimum color temperatures.

However, since Kumaki mentions that a knob is handled to provide a color temperature by an operator (column 3, lines 43-45), it is obvious to a person of ordinary skill in the art to recognize that the operator can turn the knob to minimum or zero value or to the highest or maximum value of the knob to obtain the gain and cut-off data since the gain and cut-off data change proportionally to the input color temperature values.

Regarding claim 10, Kumaki discloses (Fig. 6) a digital to analog (DAC) converter for converting the color gain and cut-off values of the amplifier (OP1) (column 8, lines 6-

13 and lines 50-53). It is well known in the art that the operational amplifier (OP) has gain and cut-off values.

Regarding claim 11, since Kumaki mentions that a knob is handled to provide a color temperature by an operator (column 3, lines 43-45), it is obvious to a person of ordinary skill in the art to recognize that the operator can turn the knob to minimum or zero value or to the highest or maximum value of the knob to obtain the gain and cut-off data since the gain and cut-off data change proportionally to the input color temperature values, wherein the minimum value and the maximum value of the knob of the knob is the initial color gain and cut-off values.

Regarding claim 12, Kumaki discloses (Figs. 1, 4, and 5) a method for color display adjustment, comprising:

selecting a range of temperature (Fig. 4) according to maximum and minimum color temperature values (column 6, lines 27-40, wherein the minimum value is zero and the maximum value is the highest value);

inputting a user selected value (Fig. 1, in the color temperature adjusting unit 5, a knob is handled to provide a color temperature by an operator) (column 3, lines 43-45); and determining color gain and cut-off data according to the user selected value (column 3, line 43 to column 4, line 20).

The only difference between the disclosure of Kumaki and the claimed invention is that the claim further requires determining color gain and cut-off data according to the maximum and minimum color temperatures.

However, since Kumaki mentions that a knob is handled to provide a color temperature by an operator (column 3, lines 43-45), it is obvious to a person of ordinary skill in the art to recognize that the operator can turn the knob to minimum or zero value or to the highest or maximum value of the knob to obtain the gain and cut-off data since the gain and cut-off data change proportionally to the input color temperature values.

Regarding claim 13, Kumaki discloses (Figs. 1, 4, and 5) a method for color display adjustment, comprising:

receiving a user selected value (Fig. 1, in the color temperature adjusting unit 5, a knob is handled to provide a color temperature by an operator) (column 3, lines 43-45);

establishing a range of temperature (Fig. 4) according to maximum and minimum color temperature values (column 6, lines 27-40, wherein the minimum value is zero and the maximum value is the highest value);

and calculating color gain and cut-off data according to the user selected value (column 3, line 43 to column 4, line 20).

The only difference between the disclosure of Kumaki and the claimed invention is that the claim further requires determining color gain and cut-off data according to the maximum and minimum color temperatures.

However, since Kumaki mentions that a knob is handled to provide a color temperature by an operator (column 3, lines 43-45), it is obvious to a person of ordinary skill in the art to recognize that the operator can turn the knob to minimum or zero value

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or to the highest or maximum value of the knob to obtain the gain and cut-off data since the gain and cut-off data change proportionally to the input color temperature values.

Regarding claim 14, Kumaki discloses (Fig. 6) a digital to analog (DAC) converter for converting the color gain and cut-off values of the amplifier (OP1) (column 8, lines 6-13 and lines 50-53). It is well known in the art that the operational amplifier (OP) has gain and cut-off values.

Regarding claim 32, Kumaki discloses (Figs. 1, 4, and 5) a method, comprising:
setting a range of temperature (Fig. 4) according to maximum and minimum color temperature values (column 6, lines 27-40, wherein the minimum value is zero and the maximum value is the highest value);

determining color gain and cut-off values of a plurality of color data signals R, G, B, being a distinct spectral component according to the set temperature range (column 3, line 43 to column 4, line 20);

entering a temperature (Fig. 4);

reading gains and cutoff values of the first, second, and third color data signals (R, G, B) corresponding to the temperature range (column 3, line 43 to column 4, line 20).

The only difference between the disclosure of Kumaki and the claimed invention is that the claim further requires determining color gain and cut-off data according to the maximum and minimum color temperatures.

However, since Kumaki mentions that a knob is handled to provide a color temperature by an operator (column 3, lines 43-45), it is obvious to a person of ordinary

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skill in the art to recognize that the operator can turn the knob to minimum or zero value or to the highest or maximum value of the knob to obtain the gain and cut-off data since the gain and cut-off data change proportionally to the input color temperature values.

Allowable Subject Matter

Claims 33-38 are objected to as being dependent upon a rejected base claim 32, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-8, 15-31, 39-49, and 61-80 are allowed.

Claims 50-60 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Tanaka et al (4,694,330) disclose (Fig. 3) a color correction circuit.


-Sano et al (5,400,086) disclose a color CRT drive apparatus and CRT display including a brightness adjustment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUU MATTHEW whose telephone number is (703) 305-4850. The examiner can normally be reached on Flexible Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BELLA MATTHEW can be reached on (703) 308-6829. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Luu



MATTHEW LUU
PRIMARY EXAMINER